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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,398	10/05/2004	Alexander Maass	10191/3574	3131

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EXAMINER	
NGUYEN, CHUONG P	
ART UNIT	PAPER NUMBER
3663	

DATE MAILED: 12/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/510,398	MAASS, ALEXANDER	
	Examiner	Art Unit	
	Chuong Nguyen	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-28* is/are pending in the application.

4a) Of the above claim(s) *17,20 and 25-28* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15,16,18,19 and 21-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 September 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Applicants' 09/26/2006 Amendment, which directly amended the drawings, amended claims 15, 16, 19 and traversed the rejection of the claims of the 06/09/2006 Office Action are acknowledged.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 15, 16, 18, 19, 21-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claims 15 and 16, the specification fails to describe the "*anticipated track*", "*anticipated path*", or "*anticipated steering reaction*". One skilled in the art could not understand their limitation or how and in what manner the "*anticipated track*", "*anticipated path*", or "*anticipated steering reaction*" are determined, or based on.

Claims 15, 16, 18, 19, 21-24 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the

relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 15 and 16, the term "anticipated" is the new matter. The original disclosure fails provide adequate support for the term.

Other claims are also rejected based on their dependency of claim 15.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 15, 16, 18, 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Breed et al (WO 00/54008).

Regarding claim 15 and as best understood by the Examiner, Breed et al disclose a method for at least one of providing driver information and performing a vehicle intervention when leaving a traffic lane comprising: recording at least one boundary of the traffic lane (page 6, lines 17-25; lines 38-39; page 7, lines 20-22; lines 37-39; page 8, lines 1-3; page 16, line 32 – page 17, line 5; page 23, line 25 – page 24, line 14); determining an anticipated track of a vehicle taking into account future, anticipated path correction by the driver (i.e. vehicle stay within a corridor; sensing driver action) (Fig 4 "14"; page 4, lines 33-39; page 31, lines 22-24; page 38, lines 6-14); deriving at least one of the driver information and the vehicle intervention from the at least one boundary of the traffic lane and the anticipated track of the vehicle (Fig 7 "50"; Fig 8

"68"; page 6, lines 17-25; page 38, line 24 – page 39, line 10); and at least one of providing the driver information when the vehicle one of leaves the traffic lane and threatens to leave the traffic lane; and performing the vehicle intervention when the vehicle one of leaves the traffic lane and threatens to leave the traffic lane (Fig 7 "50"; Fig 8 "68"; page 5, lines 13-16; page 6, lines 17-25; page 38, line 24 – page 39, line 10).

Regarding claim 16 and as best understood by the Examiner, Breed et al disclose the anticipated track of the vehicle is determined based on a future, anticipated steering reaction away from side markings of the traffic lane (Fig 4 "14"; page 8, lines 29-31; page 19, lines 13-18; page 38, lines 6-14).

Regarding claim 18, Breed et al disclose at least one boundary is recorded using an image sensor system (page 6, lines 33-39; page 23, lines 37-39).

Regarding claim 21, Breed et al disclose the vehicle intervention including an automatic intervention in steering in response to a threatened leaving of the traffic lane (page 5, lines 13-16; page 8, lines 29-31; page 19, lines 15-18).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Breed et al as applied to claim 15 above, and further in view of Hiwatashi et al (6,370,474).

Regarding claim 19, Breed et al lack the method of determining a left future track of the vehicle and a right future track of the vehicle and comparing the left future track and the right future track to left edge marking and right edge markings of the traffic lane. Hiwatashi et al teach in the same field of endeavor the method of determining a left future track of the vehicle and a right future track of the vehicle and comparing the left future track and the right future track to left edge marking and right edge markings of the vehicle (Fig 2 & 3; col 4, lines 23-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the determination of a vehicle tracks and comparison between the tracks and the edge markings of the vehicle as taught by Hiwatashi et al in the method of Breed et al for preventing traffic accident and enhancing the driver assistance system.

8. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Breed et al as applied to claim 15 above, and further in view of Jeon (6,487,501).

Regarding claim 22, Breed et al disclose the method of determining a variable representing attentiveness of the driver, providing an extent of a warning of the driver based on the variable (page 31, lines 22-24; page 37, lines 21-30) and determining at least one of the track of the vehicle (Fig 4 "14"; page 4, lines 33-39). However, Breed et al lack the method of determining a future steering correction by the driver that is used to determine at least one of the track of the vehicle. Jeon teaches in the same field of endeavor the method of determining a future steering correction by the driver (col 3, lines 7-12; col 5 – col 6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the method of determining a future steering correction by the driver as taught by Jeon in the method

of Breed et al for better accuracy in determining a track of a vehicle, preventing traffic accident, and enhancing the driver assistance system.

9. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breed et al as applied to claim 15 above, and further in view of Russell et al (6,675,094).

Regarding claims 23 and 24, Breed et al lack the determination of a future track of the vehicle based on the course of the vehicle in the past. Russell et al teach in the same field of endeavor the method of determining a future track (i.e. path prediction) of the vehicle based on the course of the vehicle in the past; wherein the course of the vehicle in the past is determined at least one of from at least one of the yaw rate and the steering angle and using the steering movements of the driver (Abstract; Summary Of The Invention, col 2-3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the method of determining a future track as taught by Russell et al in the method of Breed et al for better accuracy in tracking a vehicle path, preventing traffic accident, and enhancing the driver assistance system.

10. While patent drawings are not drawn to scale, relationships clearly shown in the drawings of a reference patent cannot be disregarded in determining the patentability of claims. See In re Mraz, 59 CCPA 866, 455 F.2d 1069, 173 USPQ 25 (1972).

Response to Arguments

11. Applicant's arguments with respect to claims 15, 16, 18, 19, 21-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. The cited prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong Nguyen whose telephone number is 571-272-3445. The examiner can normally be reached on 8:00 - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CN

JACK KEITH
SUPERVISORY PATENT EXAMINER